1. Which SQL function is used to count the number of rows in a SQL query?  
a) COUNT()  
b) NUMBER()  
c) SUM()  
d) COUNT(\*)  
View Answer

Answer: d  
Explanation: COUNT(\*) takes null value row in to consideration.

2. Which SQL keyword is used to retrieve a maximum value?  
a) MOST  
b) TOP  
c) MAX  
d) UPPER  
View Answer

Answer: c  
Explanation: The MAX() function returns the largest value of the selected column.

3. Which of the following SQL clauses is used to DELETE tuples from a database table?  
a) DELETE  
b) REMOVE  
c) DROP  
d) CLEAR  
View Answer

Answer: a  
Explanation: The SQL DELETE Query is used to delete the existing records from a table.

4. \_\_\_\_\_\_\_\_\_\_\_removes all rows from a table without logging the individual row deletions.  
a) DELETE  
b) REMOVE  
c) DROP  
d) TRUNCATE  
View Answer

Answer: d  
Explanation: TRUNCATE statement is a Data Definition Language (DDL) operation that marks the extents of a table for deallocation.

5. Which of the following is not a DDL command?  
a) UPDATE  
b) TRUNCATE  
c) ALTER  
d) None of the Mentioned  
View Answer

Answer: a  
Explanation: Data definition language (DDL) commands enable you to perform the following tasks:Create, alter, and drop schema objects.

6. Which of the following are TCL commands?  
a) UPDATE and TRUNCATE  
b) SELECT and INSERT  
c) GRANT and REVOKE  
d) ROLLBACK and SAVEPOINT  
View Answer

Answer: d  
Explanation: Transaction control commands manage changes made by DML commands. These SQL commands are used for managing changes affecting the data.

7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is not a category of SQL command.  
a) TCL  
b) SCL  
c) DCL  
d) DDL  
View Answer

Answer: b  
Explanation: SQL commands can be used not only for searching the database but also to perform various other functions.They are DDL,DML,TCL and DCL.

8. If you don’t specify ASC or DESC after a SQL ORDER BY clause, the following is used by default \_\_\_\_\_\_\_\_\_\_\_\_\_\_  
a) ASC  
b) DESC  
c) There is no default value  
d) None of the mentioned  
View Answer

Answer: a  
Explanation: ASC is the default sort order. Null values are treated as the lowest possible values.

9. Which of the following statement is true?  
a) DELETE does not free the space containing the table and TRUNCATE free the space containing the table  
b) Both DELETE and TRUNCATE free the space containing the table  
c) Both DELETE and TRUNCATE does not free the space containing the table  
d) DELETE free the space containing the table and TRUNCATE does not free the space containing the table  
View Answer

Answer: a  
Explanation: The SQL TRUNCATE command is used to delete all the rows from the table and free the space containing the table.

10. What is the purpose of the SQL AS clause?  
a) The AS SQL clause is used to change the name of a column in the result set or to assign a name to a derived column  
b) The AS clause is used with the JOIN clause only  
c) The AS clause defines a search condition  
d) All of the mentioned  
View Answer

Answer: a  
Explanation: SQL Aliases are defined for columns and tables. Basically aliases are created to make the column selected more readable.

11. What does DML stand for?  
a) Different Mode Level  
b) Data Model Language  
c) Data Mode Lane  
d) Data Manipulation language  
View Answer

Answer: d  
Explanation: Data Manipulation Language is used to modify the records in the database.

12. With SQL, how do you select all the records from a table named “Persons” where the value of the column “FirstName” ends with an “a”?  
a) SELECT \* FROM Persons WHERE FirstName=’a’  
b) SELECT \* FROM Persons WHERE FirstName LIKE ‘a%’  
c) SELECT \* FROM Persons WHERE FirstName LIKE ‘%a’  
d) SELECT \* FROM Persons WHERE FirstName=’%a%’  
View Answer

Answer: c  
Explanation: The SQL LIKE clause is used to compare a value to similar values using wildcard operators.

13. With SQL, how can you return all the records from a table named “Persons” sorted descending by “FirstName”?  
a) SELECT \* FROM Persons SORT BY ‘FirstName’ DESC  
b) SELECT \* FROM Persons ORDER FirstName DESC  
c) SELECT \* FROM Persons SORT ‘FirstName’ DESC  
d) SELECT \* FROM Persons ORDER BY FirstName DESC  
View Answer

Answer: d  
Explanation: The SQL SELECT statement queries data from tables in the database.

14. With SQL, how can you return the number of not null records in the “Persons” table?  
a) SELECT COUNT() FROM Persons  
b) SELECT COLUMNS() FROM Persons  
c) SELECT COLUMNS(\*) FROM Persons  
d) SELECT COUNT(\*) FROM Persons  
View Answer

Answer: a  
Explanation: COUNT(column\_name) is used to count the number of rows of a table where column name is a column that does not allow NULL values.

15. What does the ALTER TABLE clause do?  
a) The SQL ALTER TABLE clause modifies a table definition by altering, adding, or deleting table columns and/or constraints  
b) The SQL ALTER TABLE clause is used to insert data into database table  
c) THE SQL ALTER TABLE deletes data from database table  
d) The SQL ALTER TABLE clause is used to delete a database table  
View Answer

Answer: a  
Explanation: The ALTER TABLE statement is used to add, delete, or modify columns.

16. The UPDATE SQL clause can \_\_\_\_\_\_\_\_\_\_\_\_\_  
a) update only one row at a time  
b) update more than one row at a time  
c) delete more than one row at a time  
d) delete only one row at a time  
View Answer

Answer: b  
Explanation: The SQL UPDATE Query is used to modify the existing records in a table. You can use WHERE clause with UPDATE query to update selected rows otherwise all the rows would be affected.

17. The UNION SQL clause can be used with \_\_\_\_\_\_\_\_\_\_\_\_\_  
a) SELECT clause only  
b) DELETE and UPDATE clauses  
c) UPDATE clause only  
d) All of the mentioned  
View Answer

Answer: a  
Explanation: The SQL UNION operator is used to combine the result sets of 2 or more SELECT statements. It removes duplicate rows between the various SELECT statements.

18. Which SQL statement is used to return only different values?  
a) SELECT DIFFERENT  
b) SELECT UNIQUE  
c) SELECT DISTINCT  
d) SELECT ALL  
View Answer

Answer: c  
Explanation: The SELECT DISTINCT statement is used to return only distinct (different) values.

19. Which SQL keyword is used to sort the result-set?  
a) ORDER BY  
b) SORT  
c) ORDER  
d) SORT BY  
View Answer

Answer: a  
Explanation: The ORDER BY keyword sorts the records in ascending order by default.

20. How can you change “Hansen” into “Nilsen” in the “LastName” column in the Persons table?  
a) UPDATE Persons SET LastName=’Hansen’ INTO LastName=’Nilsen’  
b) MODIFY Persons SET LastName=’Nilsen’ WHERE LastName=’Hansen’  
c) MODIFY Persons SET LastName=’Hansen’ INTO LastName=’Nilsen’  
d) UPDATE Persons SET LastName=’Nilsen’ WHERE LastName=’Hansen’  
View Answer

Answer: d  
Explanation: In its simplest form, the syntax for the UPDATE statement when updating one table is:UPDATE table SET column1 = expression1,column2 = expression2,… WHERE conditions.

21. Which of the following command makes the updates performed by the transaction permanent in the database?  
a) ROLLBACK  
b) COMMIT  
c) TRUNCATE  
d) DELETE  
View Answer

Answer: b  
Explanation: Commit command is used to permanently save any transaction into the database.

22. Which TCL command undo all the updates performed by the SQL in the transaction?  
a) ROLLBACK  
b) COMMIT  
c) TRUNCATE  
d) DELETE  
View Answer

Answer: b  
Explanation: Rollback is used for undoing the work done in the current transaction. This command also releases the locks if any hold by the current transaction.

23. SQL query to find all the cities whose humidity is 95.  
a) SELECT city WHERE humidity = 95  
b) SELECT city FROM weather WHERE humidity = 95  
c) SELECT humidity = 89 FROM weather  
d) SELECT city FROM weather  
View Answer

Answer: b  
Explanation: The SQL WHERE clause is used to filter the results and apply conditions in a SELECT, INSERT, UPDATE, or DELETE statement.

24. SQL query to find the temperature in increasing order of all cities.  
a) SELECT city FROM weather ORDER BY temperature  
b) SELECT city, temperature FROM weather  
c) SELECT city, temperature FROM weather ORDER BY temperature  
d) SELECT city, temperature FROM weather ORDER BY city  
View Answer

Answer: d  
Explanation: The ORDER BY keyword sorts the records in ascending order by default.

25. What is the meaning of LIKE ‘%0%0%’?  
a) Feature begins with two 0’s  
b) Feature ends with two 0’s  
c) Feature has more than two 0’s  
d) Feature has two 0’s in it, at any position  
View Answer

Answer: d  
Explanation: The LIKE operator is used in a WHERE clause to search for a specified pattern in a column.

26. Find the names of these cities with temperature and condition whose condition is neither sunny nor cloudy.  
a) SELECT city, temperature, condition FROM weather WHERE condition NOT IN (‘sunny’, ‘cloudy’)  
b) SELECT city, temperature, condition FROM weather WHERE condition NOT BETWEEN (‘sunny’, ‘cloudy’)  
c) SELECT city, temperature, condition FROM weather WHERE condition IN (‘sunny’, ‘cloudy’)  
d) SELECT city, temperature, condition FROM weather WHERE condition BETWEEN (‘sunny’, ‘cloudy’);  
View Answer

Answer: a  
Explanation: The IN operator allows you to specify multiple values in a WHERE clause.

27. Find the name of those cities with temperature and condition whose condition is either sunny or cloudy but temperature must be greater than 70.  
a) SELECT city, temperature, condition FROM weather WHERE condition = ‘sunny’ AND condition = ‘cloudy’ OR temperature > 70  
b) SELECT city, temperature, condition FROM weather WHERE condition = ‘sunny’ OR condition = ‘cloudy’ OR temperature > 70  
c) SELECT city, temperature, condition FROM weather WHERE condition = ‘sunny’ OR condition = ‘cloudy’ AND temperature > 70  
d) SELECT city, temperature, condition FROM weather WHERE condition = ‘sunny’ AND condition = ‘cloudy’ AND temperature > 70  
View Answer

Answer: c  
Explanation: The AND operator displays a record if both the first condition AND the second condition are true. The OR operator displays a record if either the first condition OR the second condition is true.

28. Find all the tuples having a temperature greater than ‘Paris’.  
a) SELECT \* FROM weather WHERE temperature > (SELECT temperature FROM weather WHERE city = ‘Paris’  
b) SELECT \* FROM weather WHERE temperature > (SELECT \* FROM weather WHERE city = ‘Paris’)  
c) SELECT \* FROM weather WHERE temperature > (SELECT city FROM weather WHERE city = ‘Paris’)  
d) SELECT \* FROM weather WHERE temperature > ‘Paris’ temperature  
View Answer

Answer: a  
Explanation: Subquery—also referred to as an inner query or inner select—is a SELECT statement embedded within a data manipulation language (DML) statement or nested within another subquery.

29. Find all the cities with temperature, condition and humidity whose humidity is in the range of 63 to 79.  
a) SELECT \* FROM weather WHERE humidity IN (63 to 79)  
b) SELECT \* FROM weather WHERE humidity NOT IN (63 AND 79)  
c) SELECT \* FROM weather WHERE humidity BETWEEN 63 AND 79  
d) SELECT \* FROM weather WHERE humidity NOT BETWEEN 63 AND 79  
View Answer

Answer: c  
Explanation: The BETWEEN operator is used to select values within a range.

30. The command to remove rows from a table ‘CUSTOMER’ is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
a) DROP FROM CUSTOMER  
b) UPDATE FROM CUSTOMER  
c) REMOVE FROM CUSTOMER  
d) DELETE FROM CUSTOMER WHERE  
View Answer

Answer: d  
Explanation: The SQL DELETE Query is used to delete the existing records from a table. You can use WHERE clause with the DELETE query to delete selected rows.

31. Which of the following command makes the updates performed by the transaction permanent in the database?  
a) ROLLBACK  
b) COMMIT  
c) TRUNCATE  
d) DELETE  
View Answer

Answer: b  
Explanation: Commit command is used to permanently save any transaction into the database.

32. Which TCL command undo all the updates performed by the SQL in the transaction?  
a) ROLLBACK  
b) COMMIT  
c) TRUNCATE  
d) DELETE  
View Answer

Answer: b  
Explanation: Rollback is used for undoing the work done in the current transaction. This command also releases the locks if any hold by the current transaction.

33. SQL query to find all the cities whose humidity is 95.  
a) SELECT city WHERE humidity = 95  
b) SELECT city FROM weather WHERE humidity = 95  
c) SELECT humidity = 89 FROM weather  
d) SELECT city FROM weather  
View Answer

Answer: b  
Explanation: The SQL WHERE clause is used to filter the results and apply conditions in a SELECT, INSERT, UPDATE, or DELETE statement.

34. SQL query to find the temperature in increasing order of all cities.  
a) SELECT city FROM weather ORDER BY temperature  
b) SELECT city, temperature FROM weather  
c) SELECT city, temperature FROM weather ORDER BY temperature  
d) SELECT city, temperature FROM weather ORDER BY city  
View Answer

Answer: d  
Explanation: The ORDER BY keyword sorts the records in ascending order by default.

35. What is the meaning of LIKE ‘%0%0%’?  
a) Feature begins with two 0’s  
b) Feature ends with two 0’s  
c) Feature has more than two 0’s  
d) Feature has two 0’s in it, at any position  
View Answer

Answer: d  
Explanation: The LIKE operator is used in a WHERE clause to search for a specified pattern in a column.

36. Find the names of these cities with temperature and condition whose condition is neither sunny nor cloudy.  
a) SELECT city, temperature, condition FROM weather WHERE condition NOT IN (‘sunny’, ‘cloudy’)  
b) SELECT city, temperature, condition FROM weather WHERE condition NOT BETWEEN (‘sunny’, ‘cloudy’)  
c) SELECT city, temperature, condition FROM weather WHERE condition IN (‘sunny’, ‘cloudy’)  
d) SELECT city, temperature, condition FROM weather WHERE condition BETWEEN (‘sunny’, ‘cloudy’);  
View Answer

Answer: a  
Explanation: The IN operator allows you to specify multiple values in a WHERE clause.

37. Find the name of those cities with temperature and condition whose condition is either sunny or cloudy but temperature must be greater than 70.  
a) SELECT city, temperature, condition FROM weather WHERE condition = ‘sunny’ AND condition = ‘cloudy’ OR temperature > 70  
b) SELECT city, temperature, condition FROM weather WHERE condition = ‘sunny’ OR condition = ‘cloudy’ OR temperature > 70  
c) SELECT city, temperature, condition FROM weather WHERE condition = ‘sunny’ OR condition = ‘cloudy’ AND temperature > 70  
d) SELECT city, temperature, condition FROM weather WHERE condition = ‘sunny’ AND condition = ‘cloudy’ AND temperature > 70  
View Answer

Answer: c  
Explanation: The AND operator displays a record if both the first condition AND the second condition are true. The OR operator displays a record if either the first condition OR the second condition is true.

38. Find all the tuples having a temperature greater than ‘Paris’.  
a) SELECT \* FROM weather WHERE temperature > (SELECT temperature FROM weather WHERE city = ‘Paris’  
b) SELECT \* FROM weather WHERE temperature > (SELECT \* FROM weather WHERE city = ‘Paris’)  
c) SELECT \* FROM weather WHERE temperature > (SELECT city FROM weather WHERE city = ‘Paris’)  
d) SELECT \* FROM weather WHERE temperature > ‘Paris’ temperature  
View Answer

Answer: a  
Explanation: Subquery—also referred to as an inner query or inner select—is a SELECT statement embedded within a data manipulation language (DML) statement or nested within another subquery.

39. Find all the cities with temperature, condition and humidity whose humidity is in the range of 63 to 79.  
a) SELECT \* FROM weather WHERE humidity IN (63 to 79)  
b) SELECT \* FROM weather WHERE humidity NOT IN (63 AND 79)  
c) SELECT \* FROM weather WHERE humidity BETWEEN 63 AND 79  
d) SELECT \* FROM weather WHERE humidity NOT BETWEEN 63 AND 79  
View Answer

Answer: c  
Explanation: The BETWEEN operator is used to select values within a range.

40. The command to remove rows from a table ‘CUSTOMER’ is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
a) DROP FROM CUSTOMER  
b) UPDATE FROM CUSTOMER  
c) REMOVE FROM CUSTOMER  
d) DELETE FROM CUSTOMER WHERE  
View Answer

Answer: d  
Explanation: The SQL DELETE Query is used to delete the existing records from a table. You can use WHERE clause with the DELETE query to delete selected rows.

41. Aggregate functions are functions that take a \_\_\_\_\_\_\_\_\_\_\_ as input and return a single value.  
a) Collection of values  
b) Single value  
c) Double value  
d) All of the mentioned  
View Answer

Answer: a  
Explanation: Aggregate functions perform a calculation on a set of values.

42. SQL applies predicates in the \_\_\_\_\_\_\_ clause after groups have been formed, so aggregate functions may be used.  
a) Group by  
b) With  
c) Where  
d) Having  
View Answer

Answer: b  
Explanation: The with clause provides a way of defining a temporary relation whose definition is available only to the query in which the with clause occurs.

43. The \_\_\_\_\_\_\_\_ keyword is used to access attributes of preceding tables or subqueries in the from clause.  
a) In  
b) Lateral  
c) Having  
d) With  
View Answer

Answer: b  
Explanation: Select name, salary, avg salary from instructor I1, lateral (select avg(salary) as avg salary from instructor I2 where I2.dept name= I1.dept name);  
Without the lateral clause, the subquery cannot access the correlation variable I1 from the outer query.

44. Which of the following is not an aggregate function?  
a) Avg  
b) Sum  
c) With  
d) Min  
View Answer

Answer: c  
Explanation: With is used to create temporary relation and its not an aggregate function.

45. If we do want to eliminate duplicates, we use the keyword \_\_\_\_\_\_\_\_\_\_in the aggregate expression.  
a) Distinct  
b) Count  
c) Avg  
d) Primary key  
View Answer

Answer: a  
Explanation: Distinct keyword is used to select only unique items from the relation.

46. All aggregate functions except \_\_\_\_\_\_\_\_\_\_ ignore null values in their input collection.  
a) Count(attribute)  
b) Count(\*)  
c) Avg  
d) Sum  
View Answer

Answer: a  
Explanation: \* is used to select all values including null.

47. A Boolean data type that can take values true, false, and \_\_\_\_\_\_\_\_\_\_\_\_  
a) 1  
b) 0  
c) Null  
d) Unknown  
View Answer

Answer: d  
Explanation: Unknown values do not take null value but it is not known.

48. Which of the following should be used to find all the courses taught in the Fall 2009 semester but not in the Spring 2010 semester?  
a)

**SELECT** **DISTINCT** course id

**FROM** **SECTION**

**WHERE** semester = ’Fall’ **AND** **YEAR**= 2009 **AND**

course id **NOT** **IN** (**SELECT** course id **FROM** **SECTION** **WHERE** semester = ’Spring’ **AND** **YEAR**= 2010);

b)

**SELECT** **DISTINCT** course\_id

**FROM** instructor

**WHERE** name **NOT** **IN** (’Fall’, ’Spring’);

c)

**SELECT** course id

**FROM** **SECTION**

**WHERE** semester = 'Spring' **AND** **YEAR**= 2010);

d)

**SELECT** **COUNT** (**DISTINCT** ID)

**FROM** takes

**WHERE** (course id, sec id, semester, **YEAR**) **IN** (**SELECT** course id, sec id, semester, **YEAR**

**FROM** teaches

**WHERE** teaches.ID= 10101);

View Answer

Answer: a  
Explanation: Aggregate function can be used inside nested subqueries.

49. The phrase “greater than at least one” is represented in SQL by \_\_\_\_\_\_\_\_\_\_\_  
a) < all  
b) < some  
c) > all  
d) > some  
View Answer

Answer: d  
Explanation: > some takes at lest one value above it.

50. We can test for the nonexistence of tuples in a subquery by using the \_\_\_\_\_\_\_\_\_\_ construct.  
a) Not exist  
b) Not exists  
c) Exists  
d) Exist  
View Answer

Answer: b  
Explanation: Exists is used to check for the existence of tuples.

51. Which of the following service provider provides the highest level of service?  
a) SaaS  
b) PaaS  
c) IaaS  
d) All of the mentioned  
View Answer

Answer: a  
Explanation: As you move upward in the stack, each service model inherits the capabilities of the model beneath it, as well as all the inherent security concerns and risk factors.

52. Point out the correct statement.  
a) PaaS supplies the infrastructure  
b) IaaS adds application development frameworks, transactions, and control structures  
c) SaaS is an operating environment with applications, management, and the user interface  
d) All of the mentioned  
View Answer

Answer: c  
Explanation: IaaS has the least levels of integrated functionality and the lowest levels of integrated security, and SaaS has the most.

53. Which of the following functional cloud computing hardware/software stack is the Cloud Reference Model?  
a) CAS  
b) CSA  
c) SAC  
d) All of the mentioned  
View Answer

Answer: b  
Explanation: Cloud Security Alliance (CSA) is a not-for-profit organization with a mission to “promote the use of best practices for providing security assurance within Cloud.

54. For the \_\_\_\_\_\_\_\_\_ model, the security boundary may be defined for the vendor to include the software framework and middleware layer.  
a) SaaS  
b) PaaS  
c) IaaS  
d) All of the mentioned  
View Answer

Answer: b  
Explanation: In the PaaS model, the customer would be responsible for the security of the application and UI at the top of the stack.

55. Point out the wrong statement.  
a) Each different type of cloud service delivery model creates a security boundary  
b) Any security mechanism below the security boundary must be built into the system  
c) Any security mechanism above the security boundary must be maintained by the customer  
d) All of the mentioned  
View Answer

Answer: d  
Explanation: As you move up the stack, it becomes more important to make sure that the type and level of security is part of your Service Level Agreement.

56. Which of the following model allows vendor to provide security as part of the Service Level Agreement?  
a) SaaS  
b) PaaS  
c) IaaS  
d) All of the mentioned  
View Answer

Answer: a  
Explanation: Compliance, governance, and liability levels are stipulated under the contract for the entire stack.

57. Which of the following cloud does not require mapping?  
a) Public  
b) Private  
c) Hybrid  
d) None of the mentioned  
View Answer

Answer: a  
Explanation: Private cloud may be internal or external to an organization.

58. Which of the following service model is owned in terms of infrastructure by both vendor and customer?  
a) Public  
b) Private  
c) Hybrid  
d) None of the mentioned  
View Answer

Answer: c  
Explanation: Infrastructure location is both on- and off-premises.

59. Which of the following model type is not trusted in terms of security?  
a) Public  
b) Private  
c) Hybrid  
d) None of the mentioned  
View Answer

Answer: a  
Explanation: It is owned by a vendor.

60. Which of the following has infrastructure security managed and owned by the vendor?  
a) Hybrid  
b) Private/Community  
c) Public  
d) None of the mentioned  
View Answer

Answer: b  
Explanation: Cloud computing has a tendency to blur the location of the defined security perimeter in such a way that the previous notions of network firewalls and edge defenses often no longer apply.